IN THE CLAIMS

Please cancel all claims without prejudice and add new claims 11-20 as follows.

WE CLAIM:

5   11.   A method for modeling a technical process of an engineering plant comprising:

measuring an initial set of empirical values at various steps of a technical process using sensors while said technical process is operating based on a predetermined set of parameters;

10   screening out a set of empirical values from the initial set of empirical values for reducing a size of the initial set of empirical values to obtain a screened set of empirical values by:

dividing the initial set of empirical values into classes based on a predefined criteria, followed by assessing each empirical value in each class with respect to a predefined

15   first threshold value, and if a result of said assessing step lies below said predefined first threshold value, then screening out said empirical value, further assessing each class with respect to a predefined second threshold value, if a result of said assessing step lies below the second predefined threshold value, then, screening out said class; and

20   modeling said technical process using said screened set of empirical values to obtain a model result.

12.   A method according to claim 11, wherein the predefined criteria in said dividing step is based on the predetermined first set of parameters.

13.   A method according to claim 11, further comprising the step of :

determining an empirical value associated with a transient phase of the technical process resulting from a modification of the predetermined set of parameters; and

screening out the empirical value associated with the transient phase.

14.   A method according to claim 11, further comprising the step of:

reducing a number of empirical values in a class by selecting a representative empirical value for the class.

15.   A method according to claim 14, wherein the representative empirical value is an average of the empirical values in the class.

16.   A method according to claim 14, wherein the representative empirical value is one of a maximum value and a minimum value of the empirical values in the class.

17.   A method according to claim 14, wherein the representative empirical value is a median of the empirical values in the class.

18.   A method according to claim 11, further comprising the step of:

screening out a class with fewer number of empirical values than a predefined number.

19.   A method according to claim 11, wherein the result of said assessing step is a difference of the empirical value in the class with the predefined first threshold value.

20. A system for modeling a technical process of an engineering plant comprising:

a series of sensors for measuring and acquiring an initial set of empirical values at various stages of the technical process while the technical process is operating based on a predetermined set of parameters; and

a central processing unit being supplied with the initial set of empirical values, which screens a set of empirical values out of the initial set of empirical values using a screening algorithm to obtain a screened set of empirical values by: a division of the first set of empirical values in to classes based on a predetermined criteria, followed by an assessment of an empirical value within a class with respect to a predefined first threshold value, if a result of the assessment lies below a predefined first threshold value, then, the empirical value is screened out; and a further assessment of the class with respect to a predefined second threshold value; if a result of the further assessment lies below the second predefined threshold, then, screening out the class,

said screened set of empirical values utilized for a simulation of the technical process to obtain a model result.

REMARKS

The foregoing amendments to the specification and claims under Article 41 of the Patent Cooperation Treaty place the application into a form for prosecution